

United States Department of Agriculture

Conservation Service

Montana Agricultural Experiment Station

Bozaman,

MONTANA WATER SUPPLY OUTLOOK

Snowpack and Streamflow Forecasts as of January 1, 1985



The Montana Water Supply Outlook is a publication of the U.S. Soil Conservation Service. The SCS administers the Cooperative Snow Survey Program in cooperation with other federal, state and private agencies, organizations, and individuals.

The report is prepared by SCS, Snow Survey and Water Supply Forecast Staff, Room 443, Federal Building, 10 East Babcock, Bozeman, Montana.

Most streamflows look good!

Based on current snowpack and climatic conditions, most drainages in the state are forecast to have spring and summer streamflows near to above average.

Runoff in the northwestern part of the state is expected to be well above average.

All other areas are expected to have average or above average runoff except for streams in the Gallatin River and Clark's Fork of the Yellowstone River drainages.

Most streams in the Kootenai, Flathead, Lower Clark Fork, and Bitterroot River Basins are forecast to produce runoff 10 to 25 percent above average. Spring and summer streamflows in the Upper Clark Fo the east side of the Bitterroot, and the south side of the Blackfoot are expected to be in the near average to a little above average range.

Spring and summer streamflow is forecast to be above average in almost all Missouri River drainages. The only area where below average runoff is expected is in the Gallatin River drainage.

The Big Hole, Beaverhead and Madison Rivers in the Missouri River headwaters are predicted to have a little above average flows while the Ruby River is forecast near average. These headwater streams will combine to produce a little above average runoff into Canyon Ferry Reservoir.

Downstream tributaries flowing into the Missouri River are forecast to have above to well above average runoff.

Current snowpack and soil moisture conditions in the Yellowstone River Basin indicate spring and summer runoff should be a little above average in the Yellowstone River headwaters and near to a little below average streamflows from downstream tributaries.



UNITED STATES DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE SNOW SURVEY UNIT Federal Bidg., Rm. 443 10 East Babcock Bozeman, MT 59715

OFFICIAL BUSINESS PENALTY FOR PRIVATE USE, \$300 THIRD-CLASS BULK RATE POSTAGE AND FEES PAID USOA - SCS BOZEMAN MT PERMIT NO G-267

Snowpack much improved

Snowpacks with water content between 110 and 130 percent of average were measured in the headwaters of the Bitterroot, Big Hole and Beaverhead Rivers in southwestern Montana and in most of the central Montana mountain ranges.

Near average snowpacks with water content between 90 and 110 percent were recorded for the headwaters of the Clark Fork River in an area bounded by Butte, Hamilton, Missoula and Ovando. Another area with near average snowpack includes the headwaters for the Ruby and most of the Yellowstone and Madison Rivers east of the Continental Divide.

Below average snowpack was recorded only for the mountains around Bozeman and Red Lodge. These two areas have water contents between 70 and 90 percent of average.

In a reverse of conditions for the last 2 years, the snowpack in northwestern Montana is well above average for January 1.

With two exceptions, the rest of the state has near or above average snowpack. The exceptions are around Bozeman and Red Lodge.

By January 1, usually about 40 percent of the season's snowpack is on the ground. With considerable time left for snow to accumulate, conditions could change, but this represents a good start for the snow season.

Most north-central and northwestern areas have a snowpack between 140 and 160 percent of average. Two other areas are also in this category: the headwaters for the Madison and Yellowstone Rivers in Yellowstone National Park and the mountains west of Helena.

NEW PHONE NUMBER

On January 28, 1985, the phone number of the Montana Snow Survey Office will change to:

Commercial: 406-587-6843 8-585-4843

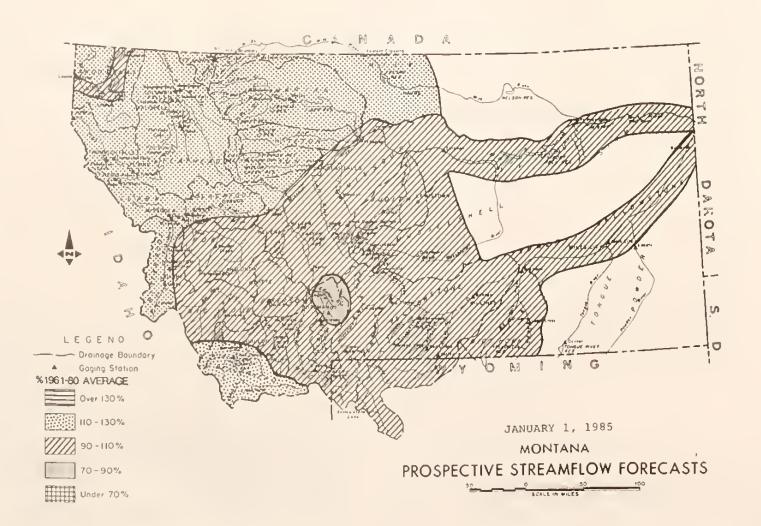
Please note this change in your

telephone directory

Snow course map enclosed

Included with this issue of the Water Supply Outlook is an updated snow course map. Please keep this for future reference.

Extra copies are available from the Snow Survey Office.



Missouri River & Hudson Bay Drainages

STREAMFLOW FORECASTS		YEAR		RECORD		YEAR	PAST RECORD		
		ECAST	THOUSAND		FORE	CAST Percent al	THOUSAND	1	
BASIN STREAM and or FORECAST POINT	Thousand Percent of Last Yes: Aspinge Aspinge				Thousand Acre Fres	Average	L+st Year	Average	
PERIOD		APRIL -	- SEPTEMBE	R		APRIL	- JULY		
REO ROCK RIVER near Monida (1)	120	117	244	103	115	119	212	96.3	
BEAVERHEAD RIVER near Grant (2)	180	114	435	158	160	117	337	137	
BEAVERHEAD RIVER at Barratts (2)	235	112		209	207	115		180	
RUBY RIVER near Alder	100	99		101	85.0	100		84.6	
BIG HOLE RIVER near Melrose	810	107		760	755	108		698	
WILLOW CREEK near Harrison	20.8	104		20.0	18.7	105		17.8	
MADISON RIVER near Grayling (3)	545	110	575	496	430	111	440	388	
MAOISON RIVER near McAllister (4)	930	110	1 + 114	848	750	112	874	672	
GALLATIN RIVER near Gateway	490	90		545	420	91		464	
SUM OF EAST+HEST FORKS HYALITE CR. or Bozeman (5) .	22.9	80		28.6	19.2	78		24.7	
HYALITE CREEK near Bozeman (6)	36.7	82		44.8	31.5	81		38.7	
GALLATIN RIVER at Logan	540	88		611	455	87		523	
MISSOURI RIVER at Toston (7)	2,643	104	3.827	2,545	2+305	105	3:179	2,196	
SHEEF CREEK near White Sulphur Springs	22.8	105		21.8	20.0	105		19.0	
SUN RIVER at Gibson Dam (8)	750	132	336	570	680	130	296	522	
BELT CREEK near Monarch	148	110		134	135	110		123	
MISSOURI RIVER at Fort Benton (9)	4+122	104		3,980	3.600	104		3 + 468	
THO MEDICINE CREEK near Browning (10)	300	120		248	280	119		235	
BAOGER CREEK near Browning	156	120		130	134	119		113	
INFLOW SWIFT RESERVOIR near Dupuyer	102	118		86.7	89.5	120		74.7	
CUT SANK CREEK at Cut Sank	142	125		114	133	123		108	
MARIAS RIVER near Shelby	705	130		542	665	128		518	
MISSOURI RIVER at Virgelie (11)	4.754	104		4,570	4 + 160	103		4+030	
MISSOURI RIVER near Landusky (11)	5,293	106		4,980	4,650	106		4.383	
NORTH FORK MUSSELSHELL RIVER near Delpine	7.0	109		6.4	6.0	111		5.4	
SOUTH FORK MUSSELSHELL RIVER above Martinsdale	67.5	107		62.8	65.0	110		58.9	
MISSOURI RIVER below Fort Peck Oam (11)	5-239	106		4.961	4 + 7 0 0	106		4.428	
MILK RIVER at Eastern Crossing (Mar-Sept.)	143	131		109					
MILK RIVER at Eastern Crossing (12) (Mar-Sept.)	290	104		279					
INFLOW LAKE SAKAKAMEA, NO (11)	13,265	104		12,755	12+750	104		12,239	
SASKATCHEHAN RIVER BASIN									
SWIFTCURRENT CREEK at Sherburne (13)	160	123	102	128	140	125	87.4	112	
ONAL TOURISM. ORCER OF OHIGH OFFICE CASE IT TO THE TOUR THE TENED OF T				107		4.0.7		0.4.7	

- (1) Adjusted for storage in Lima
 Reservoir.
 (2) Adjusted for storage in Lima and
- Clark Canyon Reservoirs.
 (3) Adjusted for storage in Hebgen
- Lake.

 (4) Adjusted for storage in Hebgen
 Lake and Ennis Lake.

 (5) Sum of West Fork Hyalite Creek and
 East Fork Hyalite Creek above the
 Reservoir.

 (6) Adjusted for storage in Middle
 Creek Reservoir.
- Creek Reservoir. (7) Adjusted for storage in Lima, Heb-gen, Ennis & Clark Canyon Reser-voirs.
- voirs.

 (8) Adjusted for storage in Gibson Reservoir & diversions.

 (9) Adjusted for storage in Lima, Clark Canyon, Hebgen, Ennis, Gibson, Pishkun, Willow Creek & Canyon Ferry Reservoirs.

 (10) Adjusted for storage in Two Medicine Reservoir & diversions in Two Medicine Canal.

 (11) Adjusted for all upstream reservoirs.

- reservoirs.

 (12) Flow at Eastern Crossing minus St. Mary's Canal.

 (13) Adjusted for storage in Lake Sherburne.
- ALL FORECASTS PREPARED IN COOPERATION WITH THE NATIONAL WEATHER SERVICE

LEGEND Orange Boundary A Gaging Station Carrier M A D A Car
Gaging Station A Gaging Station M I N G
Over 130% 110 - 130% Source: Soil Conservation Service JANUARY 1, 1985
90-110% Snow Surveys Bozeman, Montana MONTANA
MOUNTAIN SNOW WATER EQUIVALENT
Under 70% WOUNTAIN SNOW WATER EQUIVALENT

ST. MARY'S RIVER mear Babb (13) 605 124

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)											
RIVER BASIN and/or	Number of Courtai		PERCENT OF								
SUB-WATERSHED	Averaged	Last Year	Average +								
Beaverhead	. 14	102	128								
Ruby	. 4	84	104								
8ig Hole	. 15	138	125								
Boulder	. 12	174	120								
Jefferson	. 45	121	123								
Madison	. 21	107	122								
Gallatin	. 17	90	92								
Missouri Headwat	er 83	109	115								
West-side Missor	Iri										
(Toston-Cacade)) 9	171	124								
Smith-Belt-Arrov	v 7	124	-114								
Missouri Main-st	tem 16	142	119								
Teton & Sun	5	280	161								
Marias	5	298	154								
Marias-Teton-Su	n 10	292	156								
Judith-Musselsh	ell 10	127	115								
Milk	10	265	172								
8ear Paws	6	194	200								
Missouri (Total)	129	131	123								
Saskatchewan											
St. Mary's	5	271	156								
8ow River in											
Alberta	0										

SUMMARY of SNOW MEASUREMENTS

OMPARISON WITH PREVIOUS YEARS)												
RIVER BASIN	Number of Courses		R'S SHOW ERCENT OF									
SUB-WATERSHED	Averaged	Latt Year	Arerate +									
Upper Yellowston	ie											
ab Livingston .	. 11	115	110									
Shields	. 6	87	90									
8oulder &												
Stillwater	. 3	107	97									
Rock Creek &												
Clark's Fork	. 11	100	91									
Yellowstone (ab												
8ighorn River)	. 31	104	99									
Bighorn/Wyoming	. 6	98	95									
Little Bighorn .		92	97									
Bighorn (Total)	. 7	96	96									
Tongue		42	98									
Powder												
Yellowstone												
(Total)	. 39	100	98									

Yellowstone River Drainage

STREAMFLOW FORECASTS		THIS	YEAR	PAST RI	CORO	THIS			RECORD
		FOR	ECAST	THOUSAND AC	RE FEET	FORECAST		THOUSAND ACRE FEET	
BASIN, STREAM and or PORECAST POINT		Thousand Acre Feat	Percent of Average	Last Teas	Averbge	Thousand Acre Feer	Pricent of Average	List Tear	Average
	PERIOD	APRIL - SEPTEMBER			APRIL - JULY				
YELLOWSTONE RIVER at Corwin Springs		2,230	110	1,997	2,027	1,890	112	1 • 622	1+686
YELLOWSTONE RIVER near Livingston		2+545	107		2:379	2+130	108		1,969
BOULOER RIVER at Big Timber		380	95		398	340	93		366
STILLWATER near Absarokee (1)		635	100		632	525	99		528
CLARKS FORK RIVER near Belfry		575	92		628	520	92		563
ROCK CREEK mear Red Lodge		105	91		115	80.0	91		88.1
INFLOW COONEY RESERVOIR near Boyd (2)		52.6	87		60.5	43.4	88		49.5
YELLOWSTONE RIVER at Billings		4.694	105	4,262	4,516	4,050	106	3.594	3+833
BIGHORN RIVER near St. Xavier (3)		1.960	99	1,974	1,976	1,820	101	1,688	1.794
LITTLE BIGHORN RIVER near Hardin		169	93		182	150	93		162
TONGUE RIVER near Decker		250	93		269	230	94		244
YELLOWSTONE RIVER at Miles City (4)		6+970	103		6+787	6+145	104		5,906,
F'OWOER RIVER at Moorhead		240	91		263	225	93		243
YELLOWSTONE RIVER near Sidney (5)		7 : 647	102		7.518	6,740	103		6.544

- Adjusted for storage in Mystic Lake.
 Adjusted for storage in Cooney Reservoir.
 Adjusted for storage in Buffalo Bill, Boysen, Bull Lake, Pilot Butte and Bighorn Reservoirs.
 Adjusted for storage in Bull Lake, Buffalo Bill, Boysen, Pilot Butte, Bighorn and Tongue River Reservoirs.
 Adjusted for reservoirs shown in (4) and diversions into the Lower Yellowstone Canal.

ALL FORECASTS PREPARED IN COOPERATION WITH THE NATIONAL WEATHER SERVICE



CNOW CLIDVEY DATA

SNOW	S			/ D	ATA	4
SHOW COURSE EL	NOITAVB.	JANUARY 19 DATE		WATER CONTENT	LAST YEAR	AVERAGE 1961-80
rana		• • • • • • • • • • • •				
ARCH FALLS ASHLEY DIVIDE	7350 4820	12/26/84	21 28	5.8	5.3 2.2	5.7 3.3
ASHLEY LAKE	4000 6900	12/28/84	22	3.6	1.6	2.7
BAOGER PASS PILLOW	6900	1/07/85		25.0 18.1 16.7F	6.8	16.2
BANFIELD MOUNTAIN BANFIELO MTN PILLOW	5600	1/01/85 1/01/85		13.0	5.2 5.2	11.1 8.5
BARKER LAKES BARKER LAKES PILLOW	8250 8250	1/04/85 1/01/85	31	8.1 8.4	5.3	8.1
BASIN CREEK BASIN CREEK FILLOW	7180	12/28/84 1/01/85	27	5.2	3.0	3.8 2.7
BEAGLE SPRINGS FILL	8850	1/01/85		4.7	4.0	3.2
BEAR PAW SKI AREA BIG SKY	5200 7700 7950	1/02/85 1/02/85		6.6 8.3	1.8 8.7	3.2 6.8
BLACK BEAR PILLOW	7950 7950	12/27/84		21.6	19.0	16.3 15.5
BLACK PINE BLACK PINE PILLOW	7100	12/28/84	24	5.5 5.6	3.6	4.9
BLOODY OICK PILLOW	7550 5900	1/01/85		7.0		5.8
BLUE LAKE 80ULDER MTN FILLOW 80X CANYON PILLOW	3700	1/0//03	0.1	16.0 11.3	10.8	9.8
80X CANYON PILLOW 8RIDGER BOWL	6700 7250	1/01/85 12/27/84	34	4.9	3.4	3.9 11.6
BRIDGER BOWL BRIDGER BOWL FILLOW CALVERT CREEK	7250	12/27/84		9.4 5.4	11.8 10.0 4.2	11.3
CALVERT CREEK PILLOW	6430	1/01/85		5.0	3.5	4.6
CARROT BASIN CARROT BASIN PILLOW CASHE CREEK PILLOW	9000 9000	12/28/84 1/01/85		13.5 12.7	15.3	12.6
CASHE CREEK PILLOW CHESSMAN RESERVOIR	7800 6200	1/01/85 12/27/84	13	4.6 2.6	3.8 1.5	1.5
CHESSMAN RESERVOIR CLOVER MEADOW FILLOW	8800	1/01/85	25	8.2	10.5	7.3 9.0
COLE CREEK COLE CREEK PILLOW COMBINATION COMBINATION PILLOW	7850	1/01/85		4.9	6.6	7.4
COMBINATION PILLOW	5600 5600	12/28/84	12	2.7	1.9	2.4
COPPER ROTTON PILLOW	5200	1/01/85		8.6	5.6 8.1	5.8 16.9
COPPER CAMP PILLOW COYOTE HILL CRYSTAL LAKE PILLOW DAISY PEAK OALY CREEK PILLOW OARKHORSE LAKE PILL	4200	12/27/84	30	5.4	3.0	4.5
DAISY PEAK	7600	1/02/85	29	6.2	4.2	5.3
OARKHORSE LAKE PILL	5/80 8700	1/01/85		16.4	13.3	10.1
OEAOMAN CREEK OEAOMAN CREEK PILLOW	6450 6450	12/26/84	28	6.5	4.6	5.1 5.2
DESERT MOUNTAIN DEVILS SLIDE	5600	1/01/85		12.8E	4.6	6.9
OISCOVERY BASIN	7050	12/28/84	22	4.0	3.4	4.7
OIVIDE PILLOW	6400	1/01/85	26	4.2	4.4	5.1
SNOW COURSE EL	_EVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-80
OUPUYER CREEK PILLOW	5750	1/01/85		6.2		
EMERY CREEK PILLOW	4350	1/01/85		11.9	4.9	6.9
FISH CREEK FISHER CREEK PILLOW	9100	1/01/85		5.4 17.6	3.2 16.0	16.1
FLATTOP MTN PILLOW FLEECER RIDGE	6300 7500	1/01/85	28	30.9	13.7	21.6
FROHNER MEADOWS FROHNER MOWS PILLOW	6480	12/27/84	21	3.7	2.6	3.7 3.4
GARVER CREEK	4250	1/01/85		9.0E 7.5	3.8	5.6
GARVER CREEK PILLOW GIBBONS PASS	7100	12/24/84 1/01/85	51	11.9	2.7 8.9	
GRAVE CREEK GRAVE CRK PILLOH	4300 4300	1/01/85		13.5E 13.2	5.2 5.4	
GRAVE CRK PILLOW HAND CREEK	5030	12/31/84	41	8.5	4.0	5.4
HAND CREEK PILLOH HAWKINS LAKE HAWKINS LAKE PILLOH	6450	1/01/85		22.5E	8.9	15.5
HEART LAKE TRAIL HEBGEN OAM	4800	1/02/85	69	19.0	8,6	8.5
HEBGEN OAM HELL ROARING OIVIOE HOLBROOK	6550 5770	12/31/84	26 66	4.6 16.8	10.0	14.1
HOLBROOK HOOO MEAOOW	4530 6600	1/07/85	25 17	5.5 3.6	2.5	4.4 5.3
HODDOO BASIN	6050	12/26/84 1/02/85	118	37.0	18.1	20.1
HOOOOO BASIN PILLOW HOOOOO CREEK	5900	1/02/85	113	33.6	14.2	18.6 17.8
JOHNSON PARK KINGS HILL	6450 7500	1/02/85 12/26/84	19 33	8.0	5.0	
KINGS HILL KIWANIS CAMP KRAFT CREEK PILLOW	4750	1/02/85		9+1	1.6	1.1 5.5
LAKEVIEW CANYON LAKEVIEW RIOGE	6930 7400	12/31/84	24 23	5.8 5.6	5.1 5.1	5.4 4.8
LAKEVIEH RIOGE PILL	7400	1/01/85		6.0	6.8	5.1
LEMHI RIOGE LEMHI RIOGE PILLOW	8100 8100	12/27/84 1/01/85		5.4 5.4	5.0	4.8
LICK CREEK LICK CREEK PILLOW	6860 6860	12/26/84 1/01/85		3.7 3.9	3.6	4.2 3.9
LONE MOUNTAIN LOST HORSE	8880 5940	1/02/85	42	11.8 18.3	11.3	10.0
LOWER THIN PILLOW	7900	1/01/85		10.3	9.8	9.6 2.8
LUBRECHT FLUME	4680 4680	12/28/84		3.1	2.9	2.1
LUBRECHT FOREST NO 3 LUBRECHT FOREST NO 4		1/02/85 1/02/85	10	3.2 1.6	2.7 1.7	1.7
LUBRECHT FOREST NO 6 LUBRECHT HYDROPLOT		1/02/85 12/28/84		1.8	2.0	1.9 3.0
MADISON PLATEAU	7750	12/27/84	45	11.8	10.0	9.5 10.0
MADISON PLT PILL MANY GLACIER	7750 4900	1/06/85	59	15.4	4.9	9.8 9.2
MANY GLACIER FILLOW MARIAS PASS	4900 5250	1/01/85	58	13.7 15.0	4.7	6.9
MAYNARO CREEK MAYNARO CREEK PILLOW	6210 6210 8850			5.7 3.8	6.7 5.1	5.5
				7.8	8.9	10.2

1/02/85

1/01/85

1/01/85

12/27/84

20 57

6850

6400

6400

8300

MOULTON RESERVOIR

MT LOCKHART PILLOW

MULE CREEK PILLOW

MOUNT LOCKHART

иг	ON COURSE	ELEVATION		DEPTH	CONTENT	YEAR	AVERAGE 1961-80
NE	EVADA CREEK PILLOW	6480	1/01/85		8.5		
L4 F	LA PERUE CAMP	5650	12/28/84	34	7.4	5.5	
ИE	EZ PERCE CMP PILL DISY BASIN	5650	1/01/85		7.9	5.9	6.4
NC	DISY BASIN	6040	1/01/85		29.4E	18.0	17.8 15.9
NU	DISY BASIN PILLOW DRTH FORK ELK CREE	6040	1/01/85		26.1	17 • 2	15.9
N.	ORTH FORK ELK CREE! FORK ELK CRK PILL	4250	1/02/85	32	7.3	4.5	
Иſ	ONDOL NADA HISI	4220	12/27/04	7.6	6.9	4.1	4.7
ИC	DRTHEAST ENTRANCE LE. ENTRANCE PILLO	7350	12/31/84	21	20.2	17.0	19.3
Ν.	E. ENTRANCE PILLO	d 7350	1/01/85		4.6	3.8	
OF.	PHIR PARK	7150	12/30/84	35	4.6	5.6	
PE	ETERSON MEADOWS ETERSON MOW PILLOW	7200	12/27/84	25	5.5	3.1	
PE	ETERSON NOW PILLOW	7200	12/27/84		5.3	3.6	4.8
FI PI	ICKFOOT CRK PILLOW IKE CREEK PILLOW	6650	1/01/85 1/01/85		4.7		
PI PI	TRE CREEK PILLOW	5930	1/01/85		19.0	6.7	
r a Pl	IPESTONE PASS ACER BASIN PILLOW	7200	1//2//84	15	2.8	1.0	
91	OORMAN CREEK	5100	1/01/85		9.0 31.4F	8.0 10.8	
	OORMAN CRK PILLOW	5100	1/01/85 1/02/85		27.0	10.8	
	DRCUPINE	6500	12/28/84	17	3.8	3.9	
PC	ORCUPINE PILLOH	6500	12/28/84 1/01/85		3.4	3,4	
	OCKER PEAK		12/27/84		6.8	3.7	2.9
RO	OCKER PEAK PILLOW	8000	1/01/85			3.4 1.5	-
	OCKY BOY PILLOW		1/02/85			1.5	1.9
	AODLE MOUNTAIN	7040	1/02/85 12/24/84 1/01/85		3,6	1.8	_
	ADDLE WIN BILLOW	7900	1/01/95	J.Z.	13.3	9.5	11.5
	HOWER FALLS	8100	12/26/84	31	8.5	10.8	11.1
SH	HOWER FALLS PILLOW	8100	1/01/85		9.0	11.1	10.8
	ILVER RUN	6630	1/01/85 12/31/84	6	1.6	2.4	2.4
\$1	ILVER RUN PILLOW	6630	1/01/85		1.6	2.4	1.5
Sk	KALKAHO SUMMIT	7250	12/26/84	43	11.7	6.9	11.8
SK	KALKAHO SUMMIT PILI KYLARK TRAIL PILLON	L 7260	1/01/85 1/01/85		12.2	7.4	12.3
20	UNITH FORK CHIELDS	0100	17/01/85	24	17.8 9.5	10.1	
S	OUTH FORK SHIELDS FK. SHIELDS PILLO	J 8100	1/01/85		7.7	9.0	6.8
SF	POTTED BEAR MIN. PUR PARK	7000	12/28/84	37	9.2		7.1
SF	PUR PARK	8100	12/26/84	40	10.6	8.2	
SF	PUR PARK PILLOH	8100	1/01/85		12.2	9.2	
ST	TAHL PEAK	6030	1/01/85		28.5E	14.6	19.7
ST	TAHL PEAK PILLOW	6030	1/01/85		23.3	12.6	
\$1	TORM LAKE TUART MOUNTAIN	7780	12/27/84	31	7 • 1	5.0 15.2	5.6
51	ICNED CDEEN	7400	12/31/84	65		15.2	13.2
T 4	JCKER CREEK AYLOR ROAO	376U 4080	1/02/85	1.4	3.8	1.8	
	EN MILE LOWER	6600	12/26/84	20	4.0	2.2	
	N MILE MIDDLE	6800	12/26/84		5.9	3.5	3.1 4.7
TE	N MILE UPPER	8000	12/26/84	31	6.8	4.4	5.7
	PEE CREEK PILLOW	8000	1/01/85		5.7	7.7	5.9
	RINKUS LAKE	6100	12/28/84	99	28.4	18.8	18.2
	RUMAN CREEK	4060	12/28/84	17	3.2	1.8	1.6
	/ MOUNTAIN ∤ELVEMILE CREEK	6800	12/30/84	45	11.7	9.2	7.9
	RELVENILE CREEK	5600 5600	1/01/85	48	11.6 9.7	7 . 1	8.5
	ENTY-ONE MILE	7150	1/01/85	39	8.7	6.8	7.3 7.7
	IN CREEKS	3580	1/07/85	36	8.0	3.0	5.7
	IN LAKES	6510	1/03/85	83	23.8	11.8	17.2
	VIN LAKES PILLOW	6400	1/01/85		21.9	13.8	17.2
UP	PPER HOLLAND LAKE	6200	12/30/84	83	21.6	13.8	15.4
SN	OW COURSE	ELEVATION	DATE		WATER CONTENT		AVERAGE 1961-80



5600

5600 7800

7800

5450

6700

6700

6800

6800

8700

6500

5960

WALDRON

WALORON PILLOW

WEASEL DIVIDE

WEST YELLOWSTONE

WARM SPRINGS WARM SPRINGS PILLOW

W. YELLOWSTONE PILL

WHISKEY CREEK PILLOW

WHITE MILL PILLOW

HILLOH CREEK

Desert Mountain

North Fork Jocko

Upper Holland Lake

Emery Creek

Spotted Bear

Trinkus Lake

3.1 9.0

 $9 \cdot 1$

4.6

14.2

12.8

HOOD CREEK PILLOW



7.3 7.8

8.1

25.5E 7.7

6.0

12.5

2.9

9.5

12.0 10.0 2.8

2.6 7.4

8.6

9.9

5.8

6.0 9.0 7.7

10.8

4.1

2.2

3.9

4.7

10.6

11.6

16.9

5.0

4.3

7 • 1 7 • 3

11.0

3.8

5.1

SNOW			THIS YEAR		PAST R	ECORD
DRAINAGE BASIN and/o/ SNOW COURSE	Date	Snow Depth	Water Content	Water Consent (inches)		
NAME	Elevation	of Survey	(Inches)	(Incher)	Lau Year	Average ,

1/02/85 33

1/01/85 --1/01/85 36
1/01/85 --12/27/84 43
1/01/85 --1/01/85 --12/31/84 15
1/01/85 ---

34

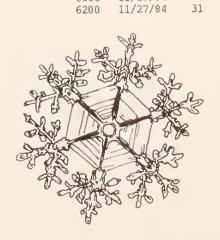
1/01/85

12/31/84

1/01/85

1/01/85

DECEMBER 1. 1984 SNOW SURVEYS 11/30/84 6.2 5600 11/30/84 33 8.0 4350 11/27/84 11/27/84 11/27/84 11/27/84 6330 37 9.7 16 4.6 7000 12.5 43 6100



Columbia River Drainage

STREAMFLOW FORECASTS			YEAR		RECORG	THIS Y			PECORD	THIS Y	EAR	PAST	RECORD
BASIN STREAM and or FORECAST POINT		7 housand	Percent of	THOUSAND	1		Thousand Perceil of		ACRE FEET	FOREC	AST	THOUSAND	CHE REET
		Arie Feer	Average	Last Fear	A + e + a f e	Acre Feat	Percent of Average	Last teas	Asciage	Thousand Acre Fees	Percent of Average	Corr Year	Averag
	FERIOD		APRIL -	SEPTEMBER	2		APRIL -	- JULY			APRIL -	- JUNE	
COOTENAI RIVER below Libby Oam (1)		7 . 460	106	5,466	7,041	6,380	106	4,520	6,020				
ISHER RIVER near Libby		340	129		264	325	131		248				
AAK RIVER near Trov		680	130		523	660	132		500				
(OOTENAL RIVER at Leonia (1)		9,060	105	6,534	8,602	7,900	105	5,596	7,498	6,350	105	4,282	6+0
INFLOW MOULTON RESERVOIR or Butte (Million Gal)						290	110	182	263	265	112	179	23
JARM SPRINGS CREEK AT MEYERS DAM near Anaconda		50.0	107		46.8	42.5	112		37.8				
LINT CREEK near Southern Cross (3)	1 1 1	19.0	104	26.3	18.3	16.5	107	21.3	15.4				
LINT CREEK below 8oulder Creek (4)		78.7	104		75.8	63.0	106		59.5				
INFLOW LOWER WILLOW CREEK RESERVOIR near Hall	(5)	16.2	103	11.6	15.7	15.4	103	10.2	14.9				
AIDDLE FORK ROCK CREEK near Philipsburg		84.0	107		78.2	76.5	109		70.5				
EVAOA CREEK near Finn		23.0	100		23.0	21.5	101		21.3				
CLACKFOOT RIVER near Conner		1 - 130	113		999	1040	115		904	890	114		7
CLARK FORK RIVER above Milltown (6)	1 1 1	855	105		816	760	107		708	655	107		5
LARK FORK RIVER above Missoula		1.985	109	1+565	1,815	1,775	110	1:360	1+612	1,500	109	880	1 / 3
EST FORK BITTERROOT RIVER near Conner (7)		210	118		178	195	119		164				
ITTERROOT RIVER near Darby		695	120		580	600	122		532	575	124		4
KALKAHO CREEK near Hamilton		61.8	110		56.0	55.0	113		48.7				
BURNT FORK CREEK near Stevensville (8)		40.4	108		37.4	35.5	110		32 - 2				
ITTERROOT RIVER at Missoula (9)		1,870	124		1,504	1,745	126		1+384	1 + 480	124		1 + 1
CLARK FORK RIVER below Missoula		3,855	116		3,319	3+515	117		2,996	2,780	11ô		2+5
LARK FORK RIVER at St. Regis		5+150	117	3,732	4+411	4,650	117	3,322	3,928	4,010	117	2,825	3,4
IORTH FORK FLATHEAD RIVER near Columbia falls		2,375	124		1,913	2+125	123		1,732	1.800	122		1 + 4
MIDDLE FORK FLATHEAD RIVER near West Glacier .		2,400	128	1+316	1,869	2,225	130	1,236	1,713	1,850	127	1+086	1+4
SOUTH FORK FLATHEAD RIVER near Columbia Falls	(10)	2.780	122	1,515	2,278	2,600	121	1,694	2,142	2,250	119	1,416	1+8
LATHEAD RIVER at Columbia Falls (10)		7.750	125	4,738	6,208	7+150	125	4,294	5,721	6.200	126	3.589	4+9
WAN RIVER near Big Fork		855	124		689	760	126		604				
LATHEAD RIVER near Poison (11)		9,400	129	5,586	7,278	8,600	128	5,102	6:712	7.200	125	4,284	5,7
CLARK FORK RIVER near Plains (11)		14.700	121	9,695	12:153	13,400	121	8 + 914	11.071	11,450	121	7,457	9+4
HOMPSON RIVER near Thompson Falls		325	125		261	295	127		233				
ROSPECT CREEK at Thompson Falls		173	121		142	163	123		132				
CLARK FORK RIVER at Whitehorse Rapids (12)		16:100	119		13,575	14,600	118		12:351	12,470	118		10:5

- Adjusted for storage in Lake Koocanusa.
 Adjusted for storage in Silver Lake, diversions to and pumping from Georgetown Lake.
 Adjusted for storage in Georgetown Lake, diversions from and pumping to Silver Lake.
 Sum Flint Creek at Hazville and Boulder Creek at Hazville.
 Sum of North Fork Lower Willow Creek near Hall and South Fork Lower Willow Creek near Hall.
 Difference in observed flow Clark Fork above Missoula and Blackfoot near Bonner.

- (7) Adjusted for storage in Painted Rocks Reservoir.(8) Adjusted for diversion into Sunset Highline
- Canal.

 (9) Difference in observed flow Clark Fork above and below Missoula.

 (10) Adjusted for storage in Hungry Horse Reservoir.

 (11) Adjusted for storage in Hungry Horse Reservoir and Flathead Lake.

 (12) Adjusted for storage in Hungry Horse Reservoir, Flathead Lake and Noxon Rapids Reservoir.

ALL FORECASTS PREPARED IN COOPERATION WITH THE NATIONAL WEATHER SERVICE

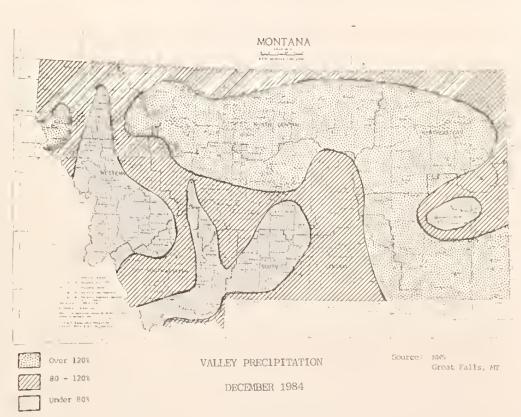
SUMMARY of SNOW MEASUREMENTS

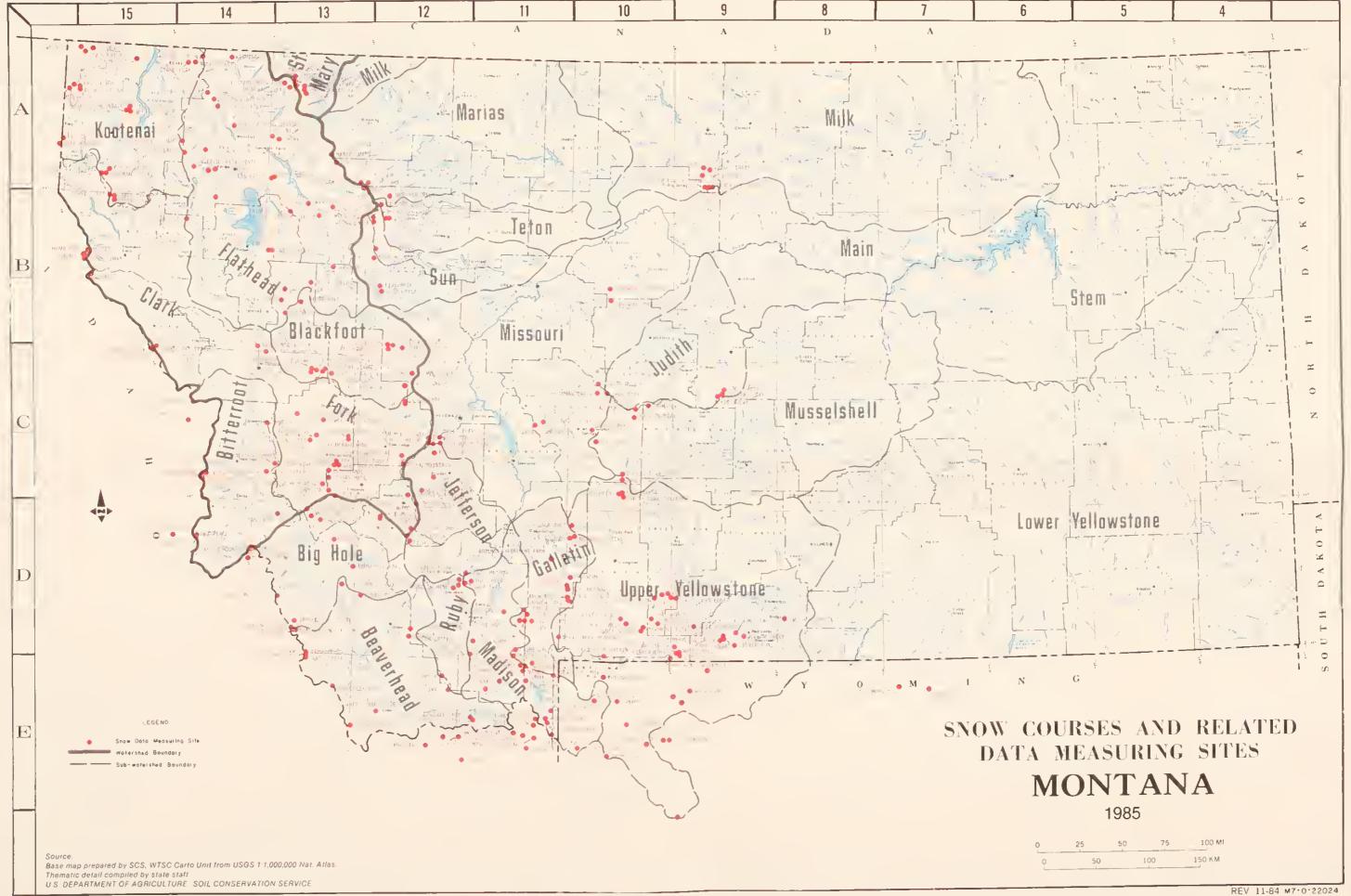
RIVER BASIN and/or	Number of Courses	THIS YEA	R'S SNOW ERCENT OF
SUB-WATERSHED	Avaraged .	Last Year	Ave/sie +
East Kootenay/BC	. 0		
Kootenai/Montana	15	244	157
Kootenai above			
Bonners Ferry	. 15	244	157
Little Bitterroot	t 5	228	147
N. Fk. Flathead.	. 7	212	144
M. Fk. Flathead.	. 9	274	158
S. Fk. Flathead.	. 11	166	150
Swan	. 8	149	148
Flathead		192	150
Stillwater &			
Whitefish	. 3	194	127
Clark Fork above			
Blackfoot	. 32	151	110
Blackfoot	. 16	129	124
Upper Clark Fork			
above Missoula	48	142	115
Bitterroot	. 13	156	121
Lower Clark Fork			
below Missoula	. 11	208	180
Clark Fork (Total		200	200
w/o Flathead)		164	134
Pend O'Reille	7 -	104	10 1
(Clark Fork &			
Flathead)	111	176	141
Columbia (Pend		170	747
O'Reille &			
Kootenai)	126	185	144
NOOCCHAI)	120	103	1 -0 -0

RESERVOIR STORAGE (Thousand Acre Feet) ENGINE MONTH

				Unable Storage	
Ballin of Stream	RESERVOIR	Usable Capacity	This Year	Last Year	Average
	·				
	COLUMBIA				
Kootenai	Koocanusa	5,748.2	3,112.0	3,619.0	3.157.0
Flathead	Hungry Horse	3,451.0	2,264.0	2,611.0	2,299.0
Flachead	Flathead Lake	1,791.0	1.017.0	1,096.0	1,325.0
	Camas (4)	45.2	17.5	28.1	16.8
	Mission Valley (8)	100.3	30.1	52.5	35.3
Clark Fork	Georgetown Lake	31.0	27.0	27.7	28.7
Clark FOLK	Lower Willow Creek	4.9	0.2	3.1	1.2
	Nevada Creek	12.6	4.3	3.4	3.8
	Noxon Rapids	334.6	318.0	318.4	314.1
Bitterroot	Painted Rocks	31.7		210.4	17.5
biccerrout	Como	34.9	7.1	18.5	8.5
	Сощо	34.5	1.1	10.5	0.5
	MISSOURI				
Beaverhead	Lima	84.0	23.7	18.4	39.5
	Clark Canyon	257.2	149.9	183.5	145.4
Ruby	Ruby	38.8	19.2	26.5	21.4
Madison	Hebgen Lake	377.5	311.3	261.7	258.9
	Ennis Lake	41.0	32.6	31.0	33.4
Gallatin	Middle Creek	8.0	3.8	4.0	3.1
Missouri	Canyon Ferry	2.043.0	1,548.0	1,785.0	1,629.0
	Hauser & Helena	61.9	63.0	63.0	62.2
	Helena Valley	9.2	3.9	4.8	6.4
	Lake Helena	10.4	10.9	10.9	10.6
	Holter Lake	81.9	38.5	77.2	78.5
	Fort Peck Lake	18,910.0	16,220.0	16,250.0	16,310.0
Smith	Smith River	10.6	8.3	8.2	6.4
	Newlan Creek	12.4	9.8	8.8	9.4
Musselshell	Bair	7.0	0.4	2.2	4.0
	Martinsdale	23.1	5.4	13.0	10.7
	Deadman's Basin	72.2	38.4	51.0	43.2
Sun	Gibson	99.1	42.5	43.0	41.2
	Willow Creek	32.2	12.1	23.9	21.2
	Pishkun	32.0	18.8	19.8	17.2
Marias	Lower Two Medicine	11.9		***	6.5
	Four Horns	19.2			12.5
	Swift	30.0	6.4	9.8	13.0
	Lake Frances	111.9	23.4	47.1	70.7
Milk	Elwell (Tiber)	1,347.0	682.7	691.8	510.2
	Beaver Creek	3.5	0.9	3.1	1.6
	Fresno	127.2	11.8	27.0	61.3
	Nelson	66.8	27.0	42.0	40.0
	1/2 PM (0.22 - P. 4	1.37			
St. Mary's	HUDSON BA	64.3	33.9	26.5	18.3
Der Hary S	Pake Sherbarne	04.5	55.7	20.5	10.5
	YELLOWSTON	_			
Stillwater	YELLOWSTOM Mystic Lake	21.0	6.0	10.3	12.4
Stillwater Clark's Fork		_	17.8	16.1	12.4 12.6
	Mystic Lake	21.0			







INDEX TO MONTANA SNOW COURSES AND DATA SITES

					Sensors in Addition to		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					Sensors III Addition to	
Snow Course Abundance Lake Ambrose Arch Falls Ashley Divide	8800 6480 7350 4820	7 28 3 10	35 9N 55 28N	11W 18W 6E 23W	Snow Course ¹	Urainage Basin Big Hole Bitterroot Gallatin Flathead	Snow Course Gibbons Pass Goat Mountain Gold Creek Lake Gold Stone	7100 7000 7200 8100	Sec. 3 20 14 11	2S 22N 8N 8S	19W 10W 12W 16W	Snow Course!	Drainage Basin Bitterroot Teton-Marias-Sun Clark Fork Beaverhead
AshTey Lake *Badger Pass Bald Eagle Peak Bald Ridge Banfield Mountain Baree Creek	4000 6900 5700 7500 5600 5500	8 4 6 11 4 36	29N 27N 27N 4N 32N 26N	23W 11W 31W 10E 30W 31W	P A,P,S,T S,P,T,W	Flathead Teton-Marlas-Sun Kootenal Upper Yellowstone Kootenai Kootenai	Grasshopper "Grave Creek Griffin Creek Divide Gunsight Lake "Hand Creek Hawkins Lake	7000 4300 5150 6300 5035 6450	19 11 30 6 18	9N 36N 28N 26N 29N 37N	8E 25W 25W 13W 25W 33W	S,P,T S,P,T 5,P,1,W	Missouri Maln Stem Kootenal Flathead Flathead Flathead Kootenal
Baree Midway Baree TraiT *Barker Lahes *Basin Creek Bassoo Peak	4500 3800 8250 7180 5150	31 5 17 31 11	26N 25N 4N 1N 24N	30W 30W 12W 7W 25W	S , P , T S , P , T	Kootenal Kootenal Clark Fork Clark Fork Flathead	Haymaker Heart Lake Trall Hebgen Dam Hell Roaring Divide Herrig Junction	8050 4800 6550 5770 4850	16 11 22 35 19	11N 14N 11S 32N 34N	12E 27H 3E 22W 23W	Р	Musselshell Clark Fork Madison Flathead Flathead
*BeagTe Springs Bear Basin Bear Paw Skl Area Beaver Cree! Beaver Lake	8850 8150 5200 7850 \$900	6 9 21 21 31	165 65 28N 105 28N	119 3E 16E 3E 119	S,P,T P S,P	Beaverhead Gallatin Milk Madison Flathead	Highwood Divide Highwood Station Holdrook Hood Meadow "Hoodoo Basin	5650 4600 4530 6600 6050	16 20 18 22 17	19N 20N 21N 45 14N	9E 9E 13W 6E 27W	P,NSC P,NSC A S,P,T	Mlssouri Main Stem Mlssouri Main Stem Flathead Gallatin Clark Fork
Berry Meadom Big Creel Big 5ky Big 5ky Meadom Big 5nomy	7000 6750 7700 6350 7150	8 7 30 35 25	5N 22N 6S 6S 12N	5W 18W 3E 3E T7E	Р	Jefferson Flathead Gallatin Gallatin Judith	Hoodoo Creek Iceberg Lake #3 Independence Intergaard Jack Creek	5900 5600 7850 6450 6650	16 1 21 6	14N 35N 7S 5N 6S	27W 17W 12E 13W 1E		Clark Fork St Mary Upper Yellowstone Clark Fork Hadison
"Black Bear Black Mountain "Black Pine "Bloody Dick Blue Lake	7950 7750 7100 7600 5900	27 34 26 12 25	755 7N BH 85 28N	5E 8H T5H 16H T2H	S,P,T S,P,T S,P,T A	Madison Clark Fork Clark Fork Beaverhead Teton-Marias-Sun	Jahnke Lake Trail Johnson Park Josephine Lower #9 Keeler Creek Ning's Hill	7200 6450 4900 3300 7500	24 16 22 25 34	75 10N 35N 10N 13N	16W 11E 16W 35W 8E	P	81g Hole Musselshell St Mary Kootenai Missouri Main Stem
8ots Sots *Boulder Mountain *Box Canyon Boxelder Creek *Bozeman Experiment Farm	7750 7950 6670 5100 4775	35 1 28 24 7	75 9N 65 28N 25	186 36 126 166 56	\$,P,T 5,P,T P 5,P,T,NSC	Upper Yellowstone Missouri Main Stem Upper Yellowstone Milk Gallatin	Klshenehn Kiwanis Camp *Kraft Creek Lake Creek Lakeview Canyon	3890 3720 4750 6100 6930	14 9 4 27 26	37N 29N 19N 11S 14S	22W 16E 17W 1E 2W	P,T,W 5,P,1	Flathead Milk Flathead Madison Beaverhead
Branham Lakes Bridger Bowl Bristow Creek Brush Creek Timber Bull Mountain	8850 7250 3900 5000 6600	5 25 2 12 18	45 1H 32N 30N 2N	3W 6E 30W 26W 9W	S.P	Ruby Gallatin Kootenai Kootenai 8lg Hole	"Lakeview Ridge Lemhi Pass "Lemhi Ridge "Lick Creek Little Park	7400 7480 8100 6860 7400	27 9 4 10 22	145 105 105 45 65	2W 15W 15W 6E 3E	5,P,T 5,P,T 5,P,1	Beaverhead Beaverhead Gallatin Gallatin
Cabin Creek Call Road *Calvert Creek Camp Misery Camp Senia	5200 8050 6430 6400 7890	34 21 34 30 2	23N 8S 2N 2BN 85	10W 2W 14W 18W 18E	S,P,T	leton-Marias-Sun Madison Big Hole Flathead Upper Yellowstone	Logan Creek Lone Mountain Lost Horse Lost Soul *Lower Twin	4300 8880 5940 4800 7900	34 25 5 31 12	30H 6S 4N 33N 4S	24H 2E 23W 29H 3H	\$,P,T	Flathead Gallatin Bitterroot Kootenai Madfson
*Carrot Basin Carter Croek *Cashe Croek Cedar Grove Chessman Reservoir	9000 7400 7800 3760 6200	18 22 8 35 2	10\$ 8\$ 9\$ 28N 8N	4F 7W 3E 31W 5W	S,P,T S,P,T	Gallatin Beaverhead Gallatin Kootenai Missouri Main Stem	Lower Willow Creek *Lubrecht Flume Lubrecht Forest #3 Lubrecht Forest #4 Lubrecht Forest #6	4740 4680 5450 4650 4040	3 13 19 23	9N 13N 13N 13N	14W T4W 14W 15W	P.NSC S.P.T	Clark Fork Clark Fork Clark Fork Clark Fork Clark Fork
Chlcken Creek Christensen Manch *Clover Meadow *Cole Creek Colley Creek	4060 6000 8600 7850 6300	24 28 26 34	33N 7S 9S 7S 6S	23W 7W 2W 19E 10E	P.NSC S.P.T S.P.T	Flathead Beaverhead Ruby Upper Yellowstone Upper Yellowstone	Lubrecht Hydroplot Madlson Plateau "Many Glacier Marlas Pass Maynard Creek	4200 7750 4900 5250 6210	22 28 70 31	13N 14S 35N 30N TN	149 5F 17W 13W	S,P 5,P,1 S,P	Clark Fork Madison St Mary leton-Marlas-Sun GalTatin
*Combination Cooke Station *Copper Bottom *Copper Comp Copper Creek	5600 8150 5200 6950 5700	7 19 15 3	8h 9S 15N 15N 15N	14W 15E 8W 9W 9W	\$,P,T \$,P,T \$,P,T	Clark fork Upper Yellowstone Clark fork Clark fork Clark fork	Middle Mill Creek Mill Creek Mineral Creek Mineral Creek Monument Peak Moulton Reservolr	7850 7500 4000 8850 6850	17 31 34 16 17	45 65 35H 75 4N	3W 11E 17W 12E	P S,P,T	Ruby Upper YeTTowstone Flathead Upper Yellowstone Clark Fork
Copper Lake Creek Copper Mountain Cattonwood Creek Coyote Hill Crevice Mountain	6100 7700 6400 4200 8400	3 13 14 12 22	15N 3N 7N 18N 95	9W 7W 8H 16W 9E		Clark Fork Jefferson Clark Fork Clark Fork Upper YeTTowstone	Mount Allen #7 "Mount Lockhart Mudd Lake "Mule Creek "Nevada Creek	5700 6400 7650 8300 6480	27 18 24 9 6	35N 25N 2N 2N 5S	16W 9W 15W 11W 7W	5,P,T 5,P,1 5,P,T	St. Mary Teton-Marlas-Sun Big Hole Blg Hole Clark Fork
*Crystal Lake Dad Creek lake Dalsy Peak *Oally Creek *Oarkhorse Lake	6050 8400 7600 5780 8600	19 24 34 16 4	12N 12S 11N 5N 85	18E 13W 11E 18W 16W	S,P,T P S,P,T S,P,T	Judith Beaverhead Musselshell Bitterroot Big Hole	New World Newton Mountain "Nez Perce Camp Nez Perce Creek Nez Perce Pass	6900 5600 5650 6500 6570	24 23 19 16 25	3S 34N 1S 4N	6E 34W 23W 6W 24W	\$,P,T	GaTlatln Kootenai Bitterroot Jefferson Bitterroot
Oavis Creek *Deadman Creek Desert Hountain Oevil*s Slide Discovery Basin	5400 6450 5600 8100 7050	20 23 30 14 21	37N 12N 31N 5S 6N	33W 8E 18W 6E 13W	S,P,T	Kootenai Missouri Maln Stem Flathead GaTlatin Clark Fork	*Nolsy Basin *North Fork Elk Creek North Fork Jocko North Meadow *Northeast Entrance	6040 6250 6330 7500 7350	25 20 3 24 33	28N 13N 17N 35	19W 13W 17W 3W 14E	S.P.T S.P.T	Flathead Clark Fork Flathead Madlson Upper Yellowstone
*Dlvide Dlx Hill *Oupuyer Creek Eagle Creek East Boulder S	7800 6400 5750 7000 9250	14 24 27 2 14	12S 11N 27N 5N 7S	4W 8W 9W 10E 12E	S,P,T P S,P,T,W A	Ruby Clark Fork Hissourl Maln Stem Musselshell Gallatin	Notch Ophir Park Pallsade Creek Peterson Meadows Picket Pin D	8500 7150 8250 7200 9450	18 13 3 2 36	115 11N 2N 4N 4S	4W 8W 15W 14W 13F	5, P A	Ruby Clark Fork Blg HoTe Clark Fork Upper Yellowstone
East Fork R. S. El Dorado Mine Elk Horn Springs Elk Peak *Emery Creek	5400 7800 7800 8000 4350	16 23 21 10 20	2N 8N 4S 8N 31N	17W 12W 12W 8F 18W	5,8,7	Bliterroot CTark Fork Beaverhead Missourl Maln Stem Flathead	Picket Pin Lower Picket Pin Middle Picket Pin Upper "Pickfoot Creek Plegan Pass #6	6200 7250 8100 6650 5500	1 3 32 31 27	55 55 45 10N 15N	14F T4F 14F 4F	P S,P,T	Upper Yellowstone Upper Yellowstone Upper Yellowstone Missourl Main Stem St. Mary
Fatty Creek Fish Creek *Fisher Creek Five-BulT *Flattop Mountain	5500 8000 9100 5700 6300	5 11 25		18W 7W 14E 10W 18W	S,P,T S,P,T	Flathead Jefferson Upper YeTlowstone Teton-Marias-Sun Flathead	*Plke Creek Plpestone Pass *Placer Basin PMC Headquarters Poorman Creek	5930 7200 8830 3656	5 10 11 34	29N 1N 55 6S	13W 7W 13E 23E	S,P,T A,S,P,1 P,W,T,NSC	leton-Marias-Sun Jefferson Upper Yellowstone Upper Yellowstone
Fleecer Ridge foolhen Forest Lake four Mlle Fourth of July	7500 8280 6400 6900 3450	11 26 5	6N 4S	10W 13W 10F 2W 33W	Ρ	Big Hole Big Hole Musselshell Wadison Kootenai	Poorman treek Porcupine Potomageton Park Ptarmigan #8 Red Mountain Red Top	5100 6500 7150 5800 6000	10 33 36 4	4N 10S 35N 36N	31W 10F 3E 17W 29W	S,P,T,W S,P,T	Kootenai Upper Yellowstone Madison St Mary Kootenai
Fred Burr Pass Frelght Creek Friday Hill Prohner Meadows Gorver Creek	8000 6000 4620 6480 4250	13 19 23	26N 34N 8N	13W 10W 33W 5W 32W	S,P,T S,P,T,W	Clark Fork Teton-Marlas-Sun Kootenal Missouri Main Stem Kootenai	Rock Creek Rock Creek Meadows "Rocker Peak Rocky Boy Sacajawea	5260 5600 8160 8000 4700 6550	7 34 17 22 36	34H 12H 7S 7N 28N 2N	34W 18E 5E 5W 16E 6E	P P S,P,T S,P	Kootenai Judith Gallatho Jefferson Milk Upper Yellowstone

					Sensors in Addition to	
Snow Course	Elev.	Sec	[мр.	Range	Snow Course!	Drainage Basin
"Saddle Mountain Sentinel Greek "Shower Falls	7940 8300	5 17	2S 10S	19W 3E	S,P,T	Bitterroot Madison
*Sllver Run	8100 6630	11	5S BS	6E 19E	S,P,T S,P,T	Gallatin Upper Yellowstone Clark Fork
*Skalkaho Summit	7250	30	6N	17W		Clark Fork
*Skylark Frail Slag-A-Melt Lake	6200 B750	29 29	19N 5S	17W 17W	S,P,T	Flathead Big Hole
Silde Rock Mountain Smuggler Mine	7100 6960	35 24	10N 45	16W 4W		Clark Fork Ruby
"South Fork Shlelds	8100	13	414	10E	S.P.T	Upper Yellowstone
Spotted Bear Mountaln *Spor Park	7000 8100	23 20	25N 12N	15W 9E	A S,P,T	Flathead Judith
"StahT Peak Star Lake F	6030 9650	5	36N 85	25W 15E	S,P,T	Kootenai
Stemp Te Pass	6600	16	138	7W	A	Upper Yellowstone Missouri Main Stem
Storm Lake Stryker Basln	7780 6180	19 26	4N 34N	13W 24W	P	Clark Fork
Stuart HIII Stuart Mountain	6500 7400	19	5 N	13W	r	Flathead Clark Fork
Sucker Creek	3960	6 11	14N 29N	18W 16E	Р	Clark Fork Mflk
Taylor Peaks	8500	26	98	26	\$,P	Gallatin
laylor Road fen Hile Lower	4080 6500	19 12	29N 8N	16E 6W	P	Milk Missouri Main Stee
Ten Hile Hiddle Ten Hile Upper	6800 8000	13 19	BN BN	6₩ 5₩		Missouri Main Stem Missour: Main Stem
*Tepee Creek	8000	15	125	19	S.P.T	Madlson
Timberline Creek Trail Creek	8850 7090	10 15	88 105	18E 15W		Upper Yellowstone Beaverhead
Trinkus Lake Truman Greek	6100 4060	9	25N 26N	17W 22W		Flathead Flathead
TV Mountain	6800	33	15N	19W		Clark Fork
"Twelvemile Creek Twenty-One Mile	5600 7150	34	5N 1TS	23W SE	S.P.T	Altterroot Gallatin
Twin Creeks	3580	25	26N	16W	A	Flathead
*Twin Lakes	6510	32	5N	23W	S,P,T	Bitterroot
Upper Holland Lake "Waldron	6200 5600	28 17	20N 2SN	15W 9W	S.P.T	Flathead Teton-Marlas-Sun
"Warm Springs Weasel Olvide	7800 5450	13 20	6N 37N	13W 24W	S,P,T	Clark Fork Kootenai
West Rosebud	7500	9	75	16E		Upper Yeilowstone
West Yellowstone "Whiskey Creek	6700 6800	34 19	135 145	5E 5E	S S,8,1	Madison Madison
"White Mill White Plne Ridge	8700 8850	18 18	95 145	15E 9W	S,P,1	Upper Yellowstone Beaverhead
Willow Creek	6500	31	75	20E		Upper Yellowstone
"Wood Creek Wrong Creek	5960 5700	36 32	20N 25N	10W	S,P,T	leton-Marlas-Sun Teton-Marras-Sun
Wrong Ridge	6800	17	25H	10%		Teton-Marlas-Sun
10AH0						
Above Burke *Bear Mountain	4100 5400	11	48N 57N	5E 3F	S,P,T	Spokane Pend Oreille
Big Springs	6400 6700	4 27	13N 13N	44F 38E	5,7,1	Snake Snake
Blue tedge Mine Camp Creek	6800	21	131	36F		Snake
*Crab Creek	6200	6 2	12N 48N	39E	S.P.1	Snake
*Humboldt Gulch Island Park	4250 6290	28	13N	5E 43E	S.8.T	Coeur d'Alene Snake
Kllgore Klt Carson	6200 5020	6	12H 27H	39E 16E		Snake Clearwater
"Lolo Pass	5240	16	38H	15E	S,P,I	Cleanwater
"Lookout "Moose Creek	5120 6200	4 14	47N 27N	6E 21E	S,P,T S,P,T	Spokane Salmon
"Savage Pass Sawtell Mountain	6170 8720	18 7	36H 14H	15E 43E	5,9,1	Clearwater Snake
*Sunset	5600	33	49N	SE	A,S,P,T	Spokane
Targhee Pass Valley View	5600 7000 6740 7700	32 7	16N 15N	44F 44E		Snake Snake
*White Elephant	7700	17	14N	43E	S,P,T	Snake
WYOMING						
"Bald Mountain "Beartooth Lake	9380 9275		56N		S,P,T S,P,T S,P,1	Blg Horn Upper YelTowstone
"Burgess R S. "Canyon	7880 7940	36	56N	89W	S,P,1 S,P,1	Tongue Upper reliowstone
East Entrance	6960	17	52N	TOSW		Big Morn
*Evening Star	9200	20	54N		\$,P,T	Upper Yellowstone
Lake Camp Lupine Creek	77B0 73B0					Upper Yellowstone Upper Yellowstone Upper Yellowstone
Norris Basin Old Faithful	7500 7400	27	SZN	116%		Madison Madison
"Parker's Peak	9400	19	SSN	108%	SIPIT	Upper Yellowstone
*Sylvan Lake Sylvan Pass	8420 7100				\$,P,T	Upper Yellowstone Upper Yellowstone Upper Yellowstone
Thumb Divide "Two Ocean Plateau	7980 9160		48N	1119	S.P.T	Upper YelTowstone Snake
"Wolverine	7650		SSN	106W	S.P.T	Upper Yellowstone

LEGEND

*SNOTEL site - data transmitted daily by telemetry

¹Blank refers to snow course only at site

S = Snow pillow also
P = Precipitation gage also
T = Max-min temperature also
W = Wind run also
A = Aerial marker also
NSC = No snow course